SONY®

Personal Component System
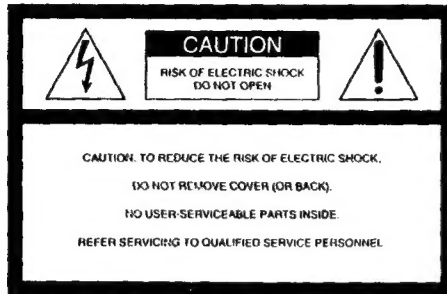
Operating Instructions

PMC-202

Warning

To prevent fire or shock hazard, do not expose the player to rain or moisture.

⚠	CAUTION	⚠
	RISK OF ELECTRIC SHOCK DO NOT OPEN	

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

The use of optical instruments with this product will increase eye hazard.

For customers in Canada

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Information

For customers in the United States

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Owner's Record

The model and serial numbers are located at the rear of the personal component system. Record the serial number in the space provided below. Refer to these numbers whenever you call your Sony dealer regarding this product.

Model No. PMC-202

Serial No. _____

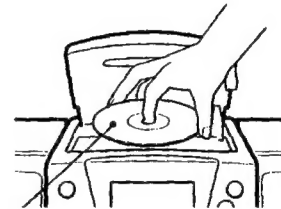# Table of contents

Playing a CD

3   **1, 2**

For hookup instructions, see pages 20 - 22.

1

⏏
PUSH OPEN

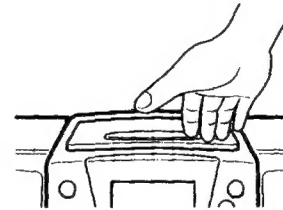Press ⏏ PUSH OPEN down to open the disc compartment and place the disc on the disc compartment.
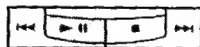
With the label side up

2

⏏
PUSH OPEN

Close the lid of the disc compartment.

3

Press ►II (direct power-on).

The player plays all the tracks once.

Display

⏏ ► II ■ ►I

`01  0002`

Track number   Playing time

Use these buttons for additional operations

POWER ▶‖ ■   ▲ PUSH OPEN

VOLUME +/−

� image of the player device

I◀◀ /▶▶I
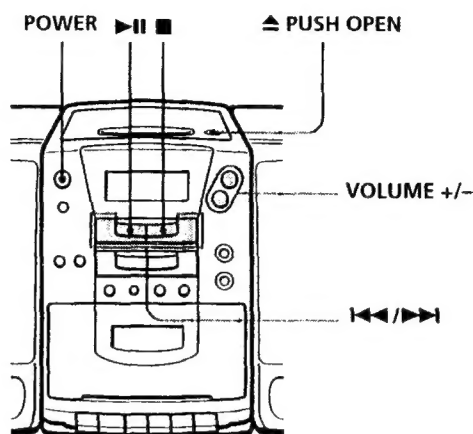
Next time you want to
listen to a CD, just press
▶‖. The player turns on
automatically and starts
playing the CD.

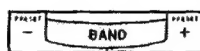| To	Press
Adjust the volume	VOLUME +/−
Stop playback	■
Pause playback	▶‖ Press again to resume play after pause.
Go to the next track	▶▶I
Go back to the previous track	I◀◀
Remove the CD	▲ PUSH OPEN
Turn on/off the player	POWER

Listening to the radio
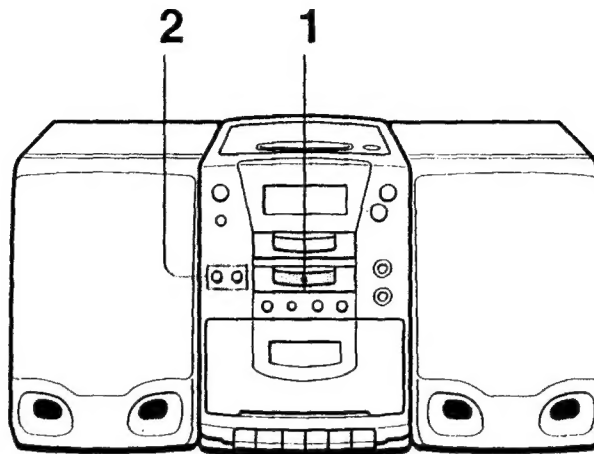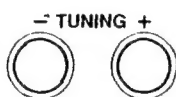

For hookup instructions, see pages 20 - 22.

1	Press BAND until the band you want appears in the display (direct power-on).	**Display**

AM   530
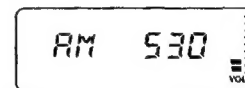
2.	Hold down TUNING+/– until the frequency digits begin to change in the display.	**Indicates an FM stereo broadcast.**

The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press the button once at a time.

FM   89.2

Use these buttons for additional operations

POWER   VOLUME +/−
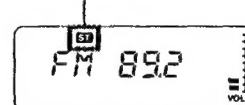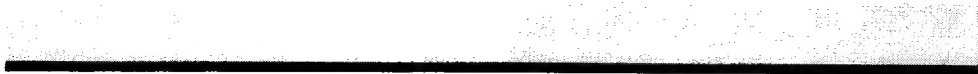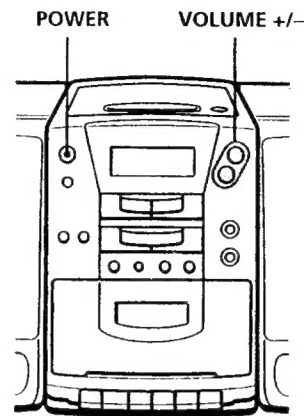
- If the FM broadcast is noisy, press PLAY MODE/MONO/ST until "Mono" appears in the display and the radio will play in monaural.
- Next time you want to listen to the radio, just press the BAND button. The player turns on automatically and starts playing the previous station.

To	Press
Adjust the volume	VOLUME +/−
Turn on/off the radio	POWER

Playing a tape

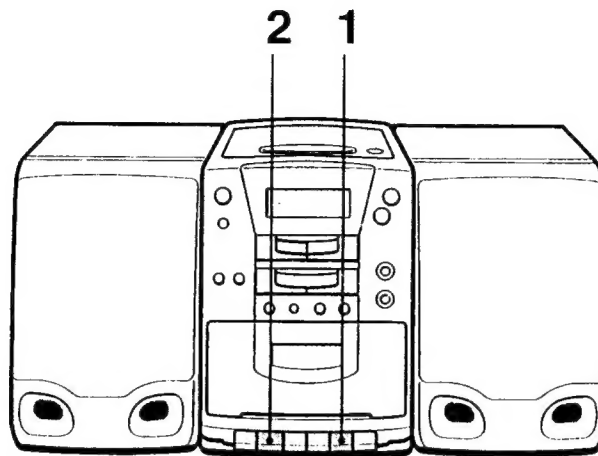For hookup instructions, see pages 20 - 22.

1
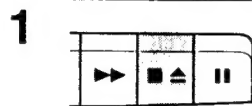
Press ■▲ to open the tape compartment and insert a recorded tape. Use TYPE I (normal), TYPE II (high position) and TYPE IV (metal) tapes. Close the compartment.

With the side you want to play facing forward.

2

Press ►.

The player turns on (direct power-on) and starts playing.

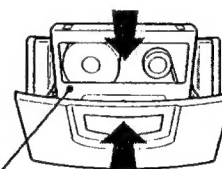## Use these buttons for additional operations

POWER   ■▲ **II**

◄◄/►►
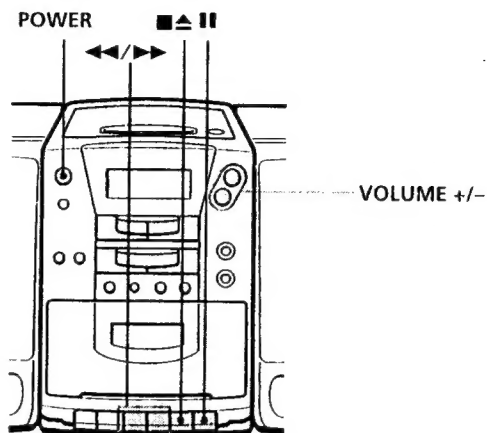
VOLUME +/−

Tip

Next time you want to listen to a tape, just press ► . The player turns on automatically and starts playing the tape.

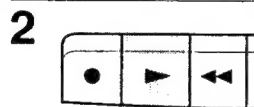| To	Press
Adjust the volume	VOLUME +/−
Stop playback	■▲
Fast-forward or rewind the tape	►► or ◄◄
Pause playback	**II** Press the button again to resume play after pause.
Eject the cassette	■▲
Turn on/off the player	POWER

Recording on a tape

For hookup instructions, see pages 20 - 22.

1

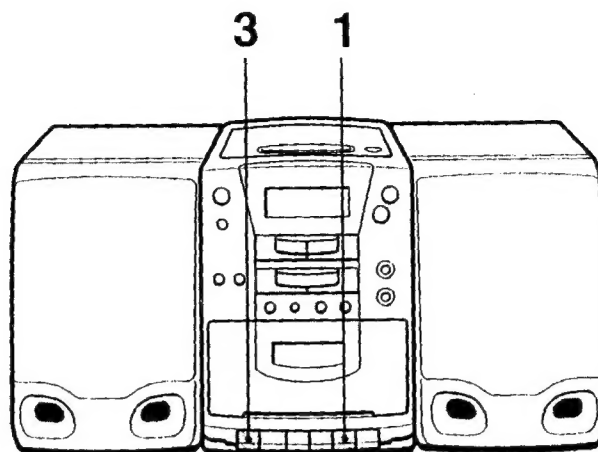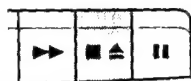Press ■▲ to open the tape compartment and insert a blank tape. Use TYPE I (normal) and TYPE II (high position) tapes only.
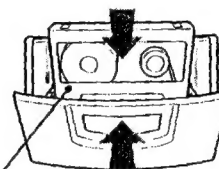
With the side you want to record on facing forward

2

Select the program source you want to record.
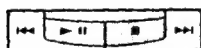
To record from the CD player, insert a CD (see page 4) and press ■ on the CD section.
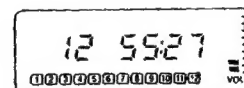
To record from the radio, press BAND and tune in the station you want (see page 6.)

Display

```
12 55:27
```

```
FM 89.2
```
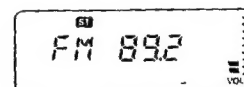
3

Press ● to start recording. (► is depressed automatically.)

Note

If the AM program makes a whistling sound after you've pressed ● in step 3, move the AM loop aerial connected to the player as far away as possible.

Tips

- Adjusting the volume or the audio emphasis (see page 23) will not affect the recording level.
- To erase a recording, proceed as follows:
  1 Disconnect the microphone if connected at the MIX MIC jack.
  2 Turn on the power and then press FUNCTION on the remote until "TAPE" appears in the display window.
  3 Press ●.

Use these buttons for additional operations
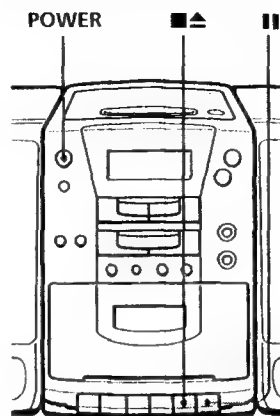
POWER   ■▲   ‖

To	Press
Stop recording	■▲
Pause recording	‖ Press the button again to resume recording.
Turn on/off the player	POWER

Using the display

You can check information about the
disc using the display.
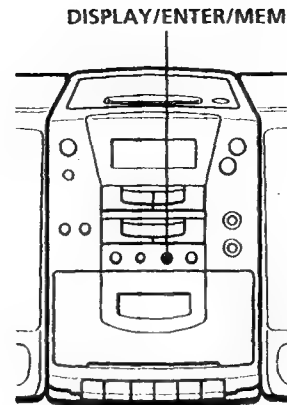
DISPLAY/ENTER/MEM

Checking the total track numbers and playing time

Press DISPLAY/ENTER/MEM in stop mode.

If the disc has more than 12 tracks, "OVER 12"
appears in the display.

Total playing time
Total track numbers
Music calendar

Checking the remaining time

Press DISPLAY/ENTER/MEM while playing a disc.

The track numbers in the music calendar disappear
after they are played.

* For a track whose
  number is more than 21
  the remaining time
  appears as "- -:- -".

To display	Press DISPLAY/ ENTER/MEM
Remaining time on the current track*	Once
Remaining time on the disc and the number of tracks left	Twice
Playing time and the current track number	Three times

Locating a specific track

You can quickly locate any track using the number buttons. You can also find a specific point in a track while playing a disc.

Number buttons

◄◄ / ►►

Note
You cannot start play if "PGM" or "SHUF REP" is lit in the display. Turn off the indication by pressing ■ .

Tip
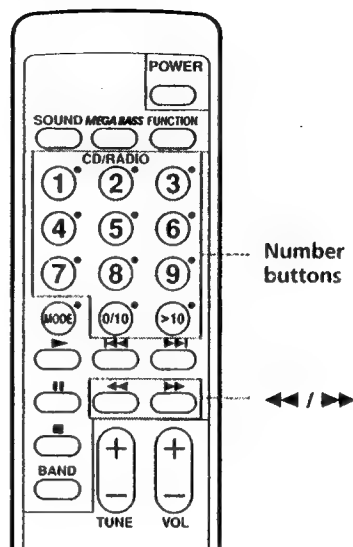When you locate a track numbered over 10, press > 10 first, then the corresponding number buttons.

Example:

To play track number 23, press >10 first, then 2 and 3.

To locate	Press
a specific track directly	a number button of the track.
a point while listening to the sound	►► (forward) or ◄◄ (backward) while playing and hold down until you find the point. When you use the buttons on the player, use I◄◄ / ►►I .
a point while observing the display	►► (forward) or ◄◄ (backward) in pause and hold down until you find the point. When you use the buttons on the player, use I◄◄ / ►►I .

Playing tracks repeatedly

(Repeat Play)

You can play tracks repeatedly in normal, shuffle or program play modes (see pages 15 – 16.)

Number buttons
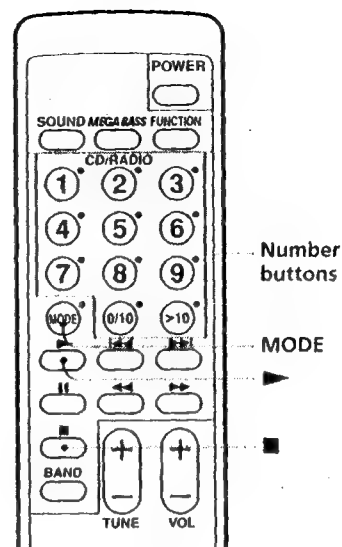
MODE
►
■

Playing tracks repeatedly

1 Press ■.

"CD" appears in the display.

2 Press MODE until the repeat mode you want appears in the display.

To repeat	Select
a single track	REP 1
all the tracks	REP ALL
tracks in random order	SHUF REP
programmed tracks	PGM REP and then program tracks (see step 3 on page 15).

3 Do either of the following to start repeat play:

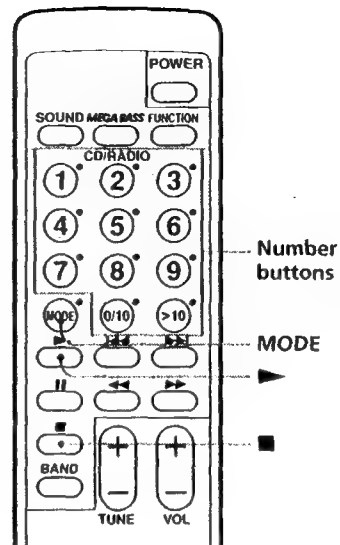- **When you've selected REP1,** select the track by pressing the number button.

- **When you've selected REP ALL, SHUF REP or PGM REP,** press ►.

Creating your own program

(Program Play)

You can make a program of up to 20 tracks in the order you want them to be played.

Number buttons

MODE

Tips

- You can select the track on the player. Press I◀◀ / ▶▶I , then press DISPLAY/ENTER/ MEM instead of the number buttons.
- You can play the same program again, since the program is saved until you open the disc compartment or turn off the power.
- You can record your own program. After you've created the program, insert a blank tape and press ● to start recording.

1 Press ■.

"CD" appears in the display.

2 Press MODE until "PGM" appears in the display.

3 Press the number buttons for the tracks you want to program in the order you want. You can program up to 20 tracks.

Programmed track ⋯⋯ **Playing order**
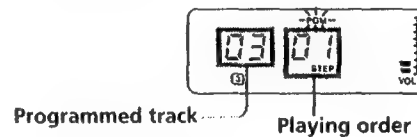
4 Press ▶ to start program play.

Creating your own program (Program Play) (continued)

To cancel Program Play
Press MODE until no indication appears in the display.

To check the order of tracks before play
Press DISPLAY/ENTER/MEM on the player.

Every time you press the button, the track number appears in the programmed order.

To change the current program
Press ■ once if the CD is stopped and twice if the CD is playing. The current program will be erased. Then create a new program following the programming procedure.

Presetting radio stations

You can store radio stations into the player's memory. You can preset up to 24 radio stations, 12 for each band in any order.

Number buttons
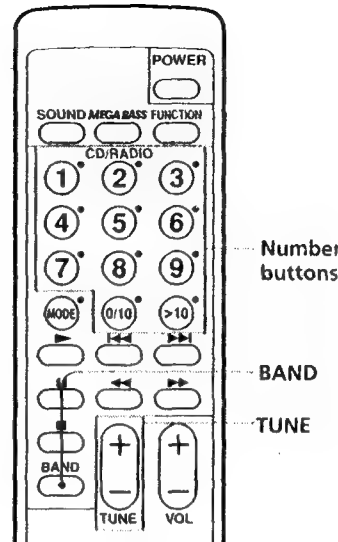
BAND

TUNE

The Radio

Tip

To preset radio staions on the player, proceed as follows:

1 Select the band and tune in a station you want.

2 Hold down DISPLAY/ENTER/ MEM for about 2 seconds. "PRESET" and a preset number flash.

3 Decide on a preset number for the station (1 to 12) by pressing PRESET +/–.

4 Press DISPLAY/ ENTER/MEM.

1 Press BAND until the band you want appears in the display.

2 Tune in a station you want.

3 Hold down the number buttons that you want to preset the new station for about 2 seconds.

To select the preset number over 10, press >10 first, then the corresponding number buttons. You need to hold down the last number button to enter for about 2 seconds. (Example: To select 12, press >10 and 1, then hold down 2 for about 2 seconds.)

The new station replaces the old one.

Playing preset
radio stations

Once you've preset the stations, use the number buttons to tune in your favorite stations.
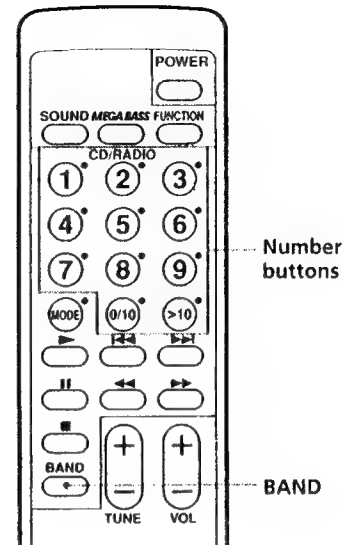
Number buttons

BAND

1 Press BAND to select the band.

2 Press the number buttons to tune in a stored station.

To tune in a preset station over 10, press >10 first, then the corresponding number buttons.

(Example: To tune in a preset station 11, press >10, and then press 1 and 1.)

Recording through a microphone/Using as a PA system

You can record sound using a microphone (not supplied) or use the player as a public address system.
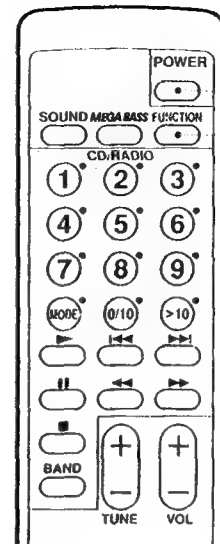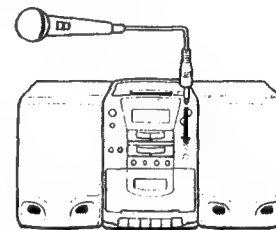

POWER

FUNCTION

Tip

You can mix CD or radio sounds and record them by adding your voice or other audio through the microphone.

Notes

• Acoustic feedback (howling) tends to occur when you use a microphone with echo function.

• If acoustic feedback (howling) occurs, turn down the volume or move the microphone away from the speaker.

Recording through a microphone

1 Plug the microphone into the MIX MIC jack and turn on the microphone if it has a power switch.
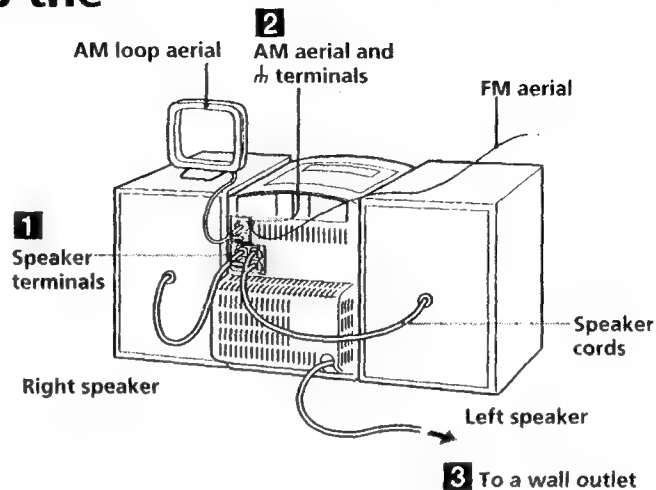

2 Turn on the power.

3 Press FUNCTION until "TAPE" appears in the display.

4 Insert a cassette for recording into the deck and press ● to start recording.

Using as a PA system

1 Do steps 1 – 3 above.

2 Sing or speak into the microphone and adjust the volume.

Hooking up the system

Make sure you turn off the power before making any connections.

2 AM aerial and ⏚ terminals

AM loop aerial

FM aerial

1 Speaker terminals

Speaker cords

Right speaker

Left speaker

3 To a wall outlet

Note

Connect the speakers for this unit only to the speaker terminals of this unit. If you connect any other speakers or equipment, malfunction may occur.

1 Hooking up the speakers

1 Twist the speaker cable coating and strip it from the end of the cable.

2 Connect the black wires to (–) minus and the red wires to (+) plus terminals; the right speaker wires to the R and the left speaker wires to the L terminals.
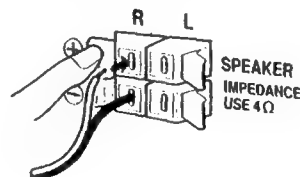
R L

SPEAKER IMPEDANCE USE 4Ω

Tip

To improve the FM reception, keep the aerial as horizontal as possible.

2 Hooking up the aerials

To connect the supplied AM aerial

1 Set up the supplied loop aerial.

2 Connect the loop aerial to the AM and ⊥ terminals. Reorient the aerial to improve broadcast reception.
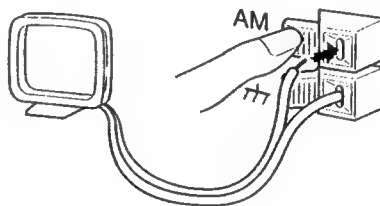
3 After you connect the loop aerial, connect a 6- and 15- meter insulated wire to the AM terminal. Connect the ⊥ terminal to earth.

Insulated wire
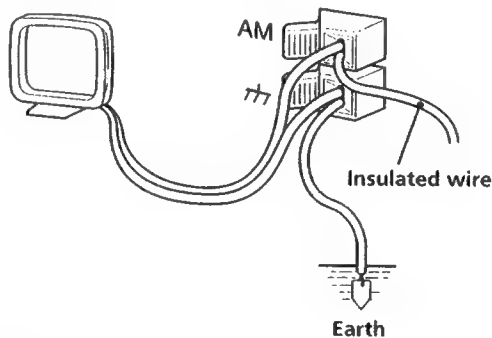
Earth

Important

When you use an outdoor aerial, be sure to connect the ⊥ terminal to earth against lightning. To prevent a gas explosion, do not connect the ground wire to a gas pipe.

▌3▐ Connecting the AC power cord

Connect the supplied AC power cord to the wall outlet.

▌4▐ Inserting batteries into the remote
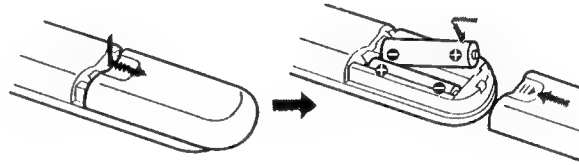
Insert two size AA (R6) batteries (not supplied)

Replacing batteries

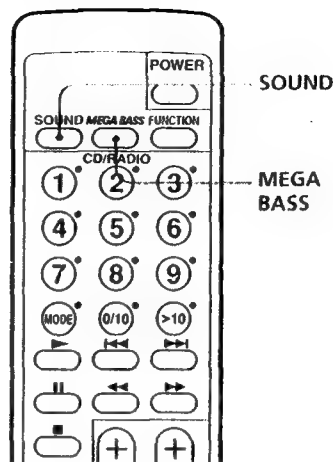With normal use, the batteries should last for about six months. When the remote no longer operates the player, replace all the batteries with new ones.

Selecting the audio emphasis

(Sound Mode/MEGA BASS)
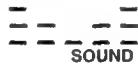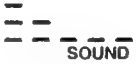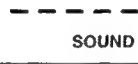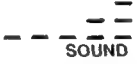
You can adjust the audio emphasis of the sound you are listening to.

Selecting the sound characteristic

Press SOUND to select the audio emphasis you want.

Choose	To get
SOUND	powerful, clean sounds, emphasizing low and high range audio.
SOUND	percussive sounds, emphasizing bass audio.
SOUND	the presence of vocals, stressing middle range audio
SOUND	the whole dynamic range for music such as classical music
SOUND	light, bright sounds emphasizing high and middle range audio

Reinforcing the bass sound

Press MEGA BASS.

"MEGA BASS" appears in the display. To return to normal sound, press the button again.

Precautions

On safety

- As the laser beam used in the CD player section is harmful to the eyes, do not attempt to disassemble the casing. Refer servicing to qualified personnel only.

- Should any solid object or liquid fall into the player, unplug the player, and have it checked by qualified personnel before operating it any further.

On power sources

- For AC operation, use the supplied AC power cord; do not use any other type.

- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet even if the player itself has been turned off.

- Unplug the player from the wall outlet when it is not to be used for an extended period of time.

- When the batteries are not to be used, remove them to avoid damage that can be caused by battery leakage or corrosion.

- The nameplate indicating operating voltage, power consumption, etc. is located at the rear.

On placement

- Do not leave the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.

- Do not place the player on an inclined or unstable place.

- Do not place anything within 10 mm of the side of the cabinet. The ventilation holes must be unobstructed for the player to operate properly and prolong the life of its components.

- If the player is left in a car parked in the sun, be sure to choose a location in the car where the player will not be subjected to the direct rays of the sun.

- Since a strong magnet is used for the speakers, keep personal credit cards using magnetic coding or spring-wound watches away from the player to prevent possible damage from the magnet.

On operation

- If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the CD player section. Should this occur, the player will not operate properly. In this case, remove the CD and wait about an hour for the moisture to evaporate.

- If the player has not been used for a long time, set it in the playback mode to warm it up for a few minutes before inserting a cassette.

If you have any questions or problems concerning your player, please consult your nearest Sony dealer.

Notes on CDs

- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.

- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.

- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there can be a considerable rise in temperature inside the car.

- Do not stick paper or sticker on the CD, nor scratch the surface of the CD.

- After playing, store the CD in its case.

If there is a scratch, dirt or fingerprints on the CD, it may cause tracking error.

Notes on cassettes

- Break off the cassette tab from side A or B to prevent accidental recording. If you want to reuse the tape for recording, cover the broken tab with adhesive tape.

Side A

Tab for side A

Tab for side B
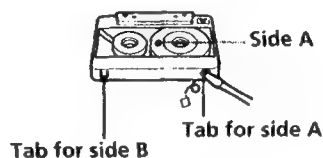
- To record on a tape with its tab broken off, cover the respective tab hole for side A or B with adhesive tape.

- The use of a cassette with more than 90 minutes of play time is not recommended except for long, continuous recording or playback.

Troubleshooting

|	Symptom	Remedy
General	The power does not come on.	• Connect the AC power cord securely.
	There is no audio.	• Make sure the display window is displaying the function you want to operate. • Adjust the volume. • Unplug the headphones when listening through speakers.
Radio	The audio is weak or has poor quality.	• Move the player away from the TV. • If you are using the remote while listening to AM radio, noise may be heard. This is unavoidable.
	The picture of your TV becomes unstable.	• If you are listening to an FM program near the TV with an indoor antenna, move the player away from the TV.
CD Player	"no disc" lights in the display even when a CD is in place.	• Insert the CD with the label surface up.
	The CD does not play.	• Make sure that the disc compartment is closed. • Place the CD with the label surface up. • Clean the CD. • Take out the CD and leave the disc compartment open for about an hour to dry moisture condensation. • Make sure "CD" appears in the display.
	The sound drops out.	• Reduce the volume. • Clean the CD, or replace it if the CD is badly damaged. • Place the player in a location free from vibration.
Tape Player	The tape does not move when you press an operation button.	• Close the cassette compartment securely.
	The REC ● button does not function/The tape does not play.	• Make sure the safety tab on the cassette is in place. • Make sure that "TAPE" appears in the display.
	The tape does not erase completely.	• Clean the erasing heads (see page 28.)

	Symptom	Remedy
Tape Player	The tape does not record.	• Make sure the tape is inserted properly. • Make sure the safety tab of the cassette is in place.
	The audio is weak/The audio quality is poor.	• Clean the heads, pinch rollers and capstans (See page 28). • Demagnetize the heads using a demagnetizer (see page 28).
	The sound is distorted.	• The source which was recorded on TYPE IV (metal) tape using this unit is being played. → Record on TYPE I (normal) or TYPE II (high position) tape and play.
Remote	The remote does not function.	• Replace all the batteries in the remote with new ones if they are weak. • Make sure that you are pointing the remote at the remote sensor on the player. • Remove any obstacles in the path of the remote and the player. • Make sure the remote sensor is not exposed to strong light such as direct sunlight or fluorescent lamp light. • Move closer to the player when using the remote.

After trying the above remedies, if you still have problems, unplug the AC power cord. After all the indications in the display disappear, plug the power cord again. If the problem persists, please consult your nearest Sony dealer.

Maintenance

Cleaning the tape heads and tape path

Wipe the heads, the pinch rollers and the capstans with a cleaning swab slightly moistened with cleaning fluid or alcohol after every 10 hours of operation for optimum playback and recording quality. To make the best possible recording, however, we recommend that you clean all surfaces over which tape travels before each recording.

Erase head   Capstan

Record/Playback   Pinch roller
head
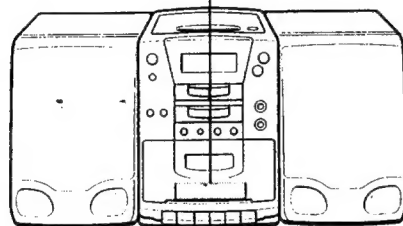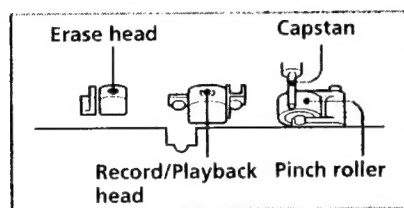
After cleaning, insert a tape when the areas cleaned are completely dry.

Demagnetizing the tape heads

After 20 to 30 hours of use, enough residual magnetism will have built up on the tape heads to begin to cause loss of high frequency sound and hiss. At this time, you should demagnetize the heads and all metal parts in the tape path with a commercially available tape head demagnetizer.

Cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as alcohol or benzine.

Specifications

AUDIO POWER SPECIFICATIONS
POWER OUTPUT AND TOTAL
HARMONIC DISTORTION
With 4-ohm loads, both channel driven from
70 - 20,000 Hz; rated 20 W per channel-
minimum RMS power, with no more than
10 % total harmonic distortion in AC
operation.

Other Specifications
CD player section
System
    Compact disc digital audio system
Laser diode properties
    Material: GaAlAs
    Wave length:780 nm
    Emission duration: Continuous
    Laser output: Less than 44.6 μW (This output is the
    value measured at a distance of about 200 mm from
    the objective lens surface on the optical pick-up
    block with 7 mm aperture.)
Spindle speed
    200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels
    2
Frequency response
    20 - 20,000 Hz +1/-2 dB
Wow and flutter
    Below measurable limit

Radio section
Frequency range
    FM: 87.6 - 108 MHz
    AM: 530 - 1,710 kHz
Aerials
    FM: Wire aerial
    AM: External aerial terminals

Cassette-corder section
Recording system
    4-track 2 channel stereo
Fast winding time
    Approx. 120s (sec.) with Sony cassette C-60
Frequency response
    TYPE I (normal): 80 - 14,000 Hz
    TYPE II (high position): 80 - 15,000 Hz

General
Speaker
    Full range: 10 cm (4 in.) dia., cone type
    Tweeter: 2 cm (4/5 in.) dia.
Inputs
    Mixing microphone input jack (minijack):
    Sensitivity 2.5 mV
    For low impedance microphone
Outputs
    Headphones jack (stereo minijack)
    For 16 - 68 ohms impedance headphones
Power output (excluding US model)
    30 W + 30 W (at 4 ohms, 10 % harmonic distortion)
Power requirements
    For personal component system:
    120 V AC, 60 Hz
    For remote commander:
    3 V DC, 2 size AA (R6) batteries
Power consumption
    AC 48 W
Dimensions
    Unit: approx. 160 × 237 × 292.5 mm (w/h/d)
        (6 ⅜×9 ⅜×11 ⅝ inches)
    Speaker:approx. 150 × 230 × 240 mm (w/h/d)
        (6×9 ⅛ ×9 ½ inches)
        (incl. projecting parts and controls)
Mass
    approx. 9.4 kg (20 lb. 12 oz)
Supplied accessories
    Remote control (1)
    AM loop aerial (1)

Design and specifications are subject to change without
notice.

Optional accessories
Sony DYNAMIC MICROPHONE series
Sony MDR headphone series

Index